

space by a combinatorial high throughput screening (CHTS) method to select a best case set of factors from said experimental space.

Cancel claims 2, 5 and 20 without prejudice or disclaimer.

REMARKS

Applicant thanks Examiner Smith and Primary Examiner Marschel for the courtesies extended to Applicant's representative at the February 11 interview. At that interview, the PTO indicated that the proposed amendment faxed to Examiner Smith would overcome the rejections (subject to an interference search) except for the objection to the Declaration. This Amendment conforms in substance with the proposed amendment with this acknowledgement and summary of the February 11 interview and with an attached substitute Declaration. Applicant's separate record of the further substance of the interview is incorporated into the following remarks.

Claims 1, 3, 4, 6 to 19 and 21 to 25 are pending.

I. RESTRICTION REQUIREMENT

Applicants reaffirm their traverse to the restriction requirement. Further, the non-elected species claims must be rejoined for examination and claims 4 and 6 to 15 allowed for the following reasons:

The October 24, 2002 Restriction Requirement required election of one of Group I claims 1 to 22 and Group II claims 23 to 25. Applicant elected Group I, claims 1 to 22 with traverse. Further, the October 24, 2002 Restriction Requirement required election of species from among a ternary defined secondary experimental space (A), a quaternary defined secondary experimental space (B) and a centenary defined secondary experimental space (C) from within Group I. Applicant elects Species A, claims 1 to 15 and 18 to 20, with traverse.

In the present Office Action, claim 5 was rejected solely "due to their [its] dependency from claims 1, 2 and 18 [1 and 2]." The present Amendment amends

independent claim 1 to be the same as claim 5 rewritten in independent form including the limitations of intervening claim 2. Claim 1 as rewritten should be allowable.

Claim 1 recites "a second experimental space." The term "second experimental space" is generic to all of the ternary defined secondary experimental space (A), quaternary defined secondary experimental space (B) and centenary defined secondary experimental space (C) species of the claims. MPEP 809.04 entitled "Retention of Claims to Non-elected Invention," provides:

Where the requirement for restriction in an application is predicated upon the nonallowability of generic or other type of linking claims, applicant is entitled to retain in the case claims to the nonelected invention or inventions.

If a linking claim is allowed, the examiner must thereafter examine species if the linking claim is generic thereto, or he or she must examine the claims to the nonelected inventions that are linked to the elected invention by such allowed linking claim.

Claim 1 is an allowable generic claim to species (A), (B) and (C). The PTO must rejoin in accordance with MPEP 809.04 and examine species (B) and (C).

II. OBJECTION TO THE SPECIFICATION

The Office Action objected to the specification at page 6, lines 8 to 9. Page 6, lines 8 to 9 have been amended to remove the noted overlap and the objection should be withdrawn.

III. OBJECTION TO THE DECLARATION

Applicants enclose a Substitute Declaration for the California inventor with a correct execution. The objection to the Declaration should be withdrawn.

IV. CLAIM OBJECTIONS

Claim 15 has been amended to add a claim ending period. Claim 20 has been cancelled. The objection to claims 15 and 20 should be withdrawn.

V. 35 U.S.C. §112, SECOND PARAGRAPH REJECTION OF CLAIMS 1 TO 4, 6 TO 8, 10 TO 14 AND 18

Claims 1 to 4, 6 to 8, 10 to 14 and 18 were rejected under 35 U.S.C. §112, second paragraph. The Office Action states that these claims "contain embodiments which are beyond the elected invention, particularly 'second experimental space.'"

First, the Office Action statement is incorrect. Applicant elected Group I (claims 1 to 22) and species A (ternary space). All of claims 1 to 4, 6 to 8, 10 to 14 and 18 read on the elected Group I claims and species A. All of claims 1 to 4, 6 to 8, 10 to 14 and 18 are directed to the elected invention.

Second, Applicant is unaware of 35 U.S.C. §112, second paragraph basis for rejecting claims on the basis that they "contain embodiments which are beyond the elected invention, particularly 'second experimental space.'" 35 U.S.C. §112, second paragraph, provides:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The PTO is specifically requested to state how claims fail to "particularly point out or distinctly claim" because they are non-elected. Non-election does not change the terms of the claims. The rejection of claims 1 to 4, 6 to 8, 10 to 14 and 18 under 35 U.S.C. §112, second paragraph should be withdrawn.

VI. 35 U.S.C. §112, SECOND PARAGRAPH REJECTION OF CLAIMS 1 TO 2, 6 TO 8 AND 18 TO 19

Claims 1 to 2, 6 to 8 and 18 to 19 were rejected under 35 U.S.C. §112, second paragraph. The Office Action states that the term "factors" is "vague and indefinite."

Whether claims are definite under 35 U.S.C. §112, second paragraph, is determined in light of the specification. The claims read in light of the specification need only apprise those skilled in the art of the scope of the invention. *Hybritech v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1387, 231 USPQ 81, 94, 95 (Fed. Cir. 1986), cert. denied 480 US 947 (1987). The term "factor" is exemplified in the

specification. For example, see the paragraph under BRIEF SUMMARY OF THE INVNEITON, spanning page 1 to page 2 or page 2, line 4 ("factor of at least two mixtures") or page 3, line 16 ("ternaries (three factor systems).") The term "factor" is known to mean "a quantity or a variable being studied in an experiment as a possible cause of variation," McGraw-Hill Dictionary of Scientific and Technical Terms, 5th Ed., p. 729 (1994). From its well known meaning and its exemplified use in the specification, the term "factor" apprises those skilled in the art of the claim scope.

The PTO argues that "factor" has more than one possible interpretation. True. The term "factor" is intended to mean both a "simulation factor" (see for example, claim 18) and an "experimental factor" (see for example the claim 3 incorporated "factor"). The claims are definitely intended to encompass more than one type of factor. 35 U.S.C. §112, second paragraph does not prohibit a term that encompasses more than one type. Otherwise, 35 U.S.C. §112, second paragraph would prohibit generic claims. 35 U.S.C. §112, second paragraph does not prohibit generic claims. 35 U.S.C. §112, second paragraph only requires language to apprise one skilled in the art. Use of the term "factor" meets this requirement and the rejection of claims 1 to 2, 6 to 8 and 18 to 19 under 35 U.S.C. §112, second paragraph should be withdrawn.

VII. 35 U.S.C. §102(b) REJECTION OF CLAIMS 1 TO 4, 6, 9 TO 10 AND 12 TO 13 OVER REDDINGTON ET AL. AND 35 U.S.C. §103(a) REJECTION OF CLAIMS 1 TO 4, 6 AND 9 TO 14 AND 12 TO 13 OVER REDDINGTON ET AL. AND CHAUDHARI ET AL.

As pointed out above, claim 5 was rejected solely "due to their [its] dependency from claims 1, 2 and 18 [1 and 2]." The present Amendment amends independent claim 1 to be the same as claim 5 rewritten in independent form including the limitations of intervening claim 2. Claim 1 as rewritten should be allowable. Claims 3, 4 and 6 to 17 depend from allowable claim 1 and should be allowable. The rejection of claims 1 to 4, 6, 9 to 10 and 12 to 13 under 35 U.S.C. §102(b) over Reddington et al. and the rejection of claims 1 to 4, 6 and 9 to 14 and 12 to 13 under 35 U.S.C. §103(A) over Reddington et al. and Chaudhari et al. should be withdrawn.

VIII. 35 U.S.C. §103(a) REJECTION OF CLAIMS 1 TO 4, 6 TO 10, 12 TO 13 AND 18 TO 19 OVER REDDINGTON ET AL. AND AGRAFIOTIS ET AL.

Claims 1 to 4, 6 to 10, 12 to 13 and 18 to 19 were rejected under 35 U.S.C. §103(a) over Reddington et al. and Agrafiotis et al. As pointed out above, claims 3, 4, 6 to 10 and 12 to 13 depend from allowable claim 1 (as amended) and should be allowed.

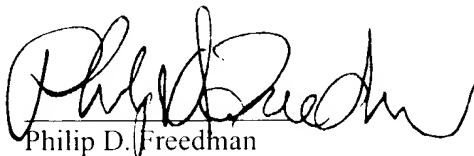
Claim 20 was not rejected under 35 U.S.C. §103(a) or 35 U.S.C. §102(b). Independent claim 18 has been amended to include the limitations of claim 20. Claim 18 should be allowable. Claims 19 and 21 to 22 depend from claim 18 and should be allowable.

IX. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that claims 1, 3, 4, 6 to 19 and 21 to 25 are allowable. Reconsideration and allowance are requested.

Should the Examiner believe that any further action is necessary in order to place this application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please insert the following prior to page 1, line 1:

This invention was made with government support under Contract No. 70NANB9H3038 awarded by NIST. The government may have certain rights in the invention.

Please rewrite page 6, lines 8 and 9 as follows:

j) from a starting point one unit higher than the first summation, e.g.,

$$\sum_{i=1}^T \rightarrow \sum_{i=1}^T \sum_{j=i+1}^T$$

IN THE CLAIMS:

Please rewrite claims 1, 15 and 18 as follows:

1. (amended) A method, comprising:

(A) defining a first experimental space comprising factors of at least two mixtures with at least one common factor;

(B) defining a second experimental space by deleting duplicate factor combinations from said first experimental space; and

(C) conducting [an] a combinatorial high throughput screening (CHTS) experiment on said second experimental space, comprising an iteration of steps of simultaneously reacting a multiplicity of tagged reactants and identifying a multiplicity of tagged products of the reaction and evaluating said identified products after completion of a single or repeated iteration. space to select a best case set of factors from said second experimental space.

15. (amended) The method of claim 1, wherein said second experimental space is

a ternary space comprising a number of experiments defined by

$$V + \prod_{i=1}^3 n_i \times I_3 + \left[\sum_{i=1}^3 \frac{1}{n_i} \prod_{i=1}^3 n_i \right] \times I_2 \quad 2$$

18. (amended) A system for selecting a best case set of experiments of a experimental reaction, comprising:

a processor that (A) defines a first experimental space comprising factors of at least two mixtures with at least one common factor and (B) defines a second experimental space by deleting duplicate factor combinations from said first experimental space and wherein said second experimental space is a ternary space comprising a number of experiments defined by

$$V + \prod_{i=1}^3 n_i \times I_3 + \left[\sum_{i=1}^3 \frac{1}{n_i} \prod_{i=1}^3 n_i \right] \times I_2 \quad ; \text{ and}$$

a reactor and evaluator to select a best case set of factors from said experimental space by a combinatorial high throughput screening (CHTS) method to select a best case set of factors from said experimental space.